MERCER
Investment Consulting

May 20, 2005

Total Fund Review – First Quarter Board Meeting
Arizona State Retirement System

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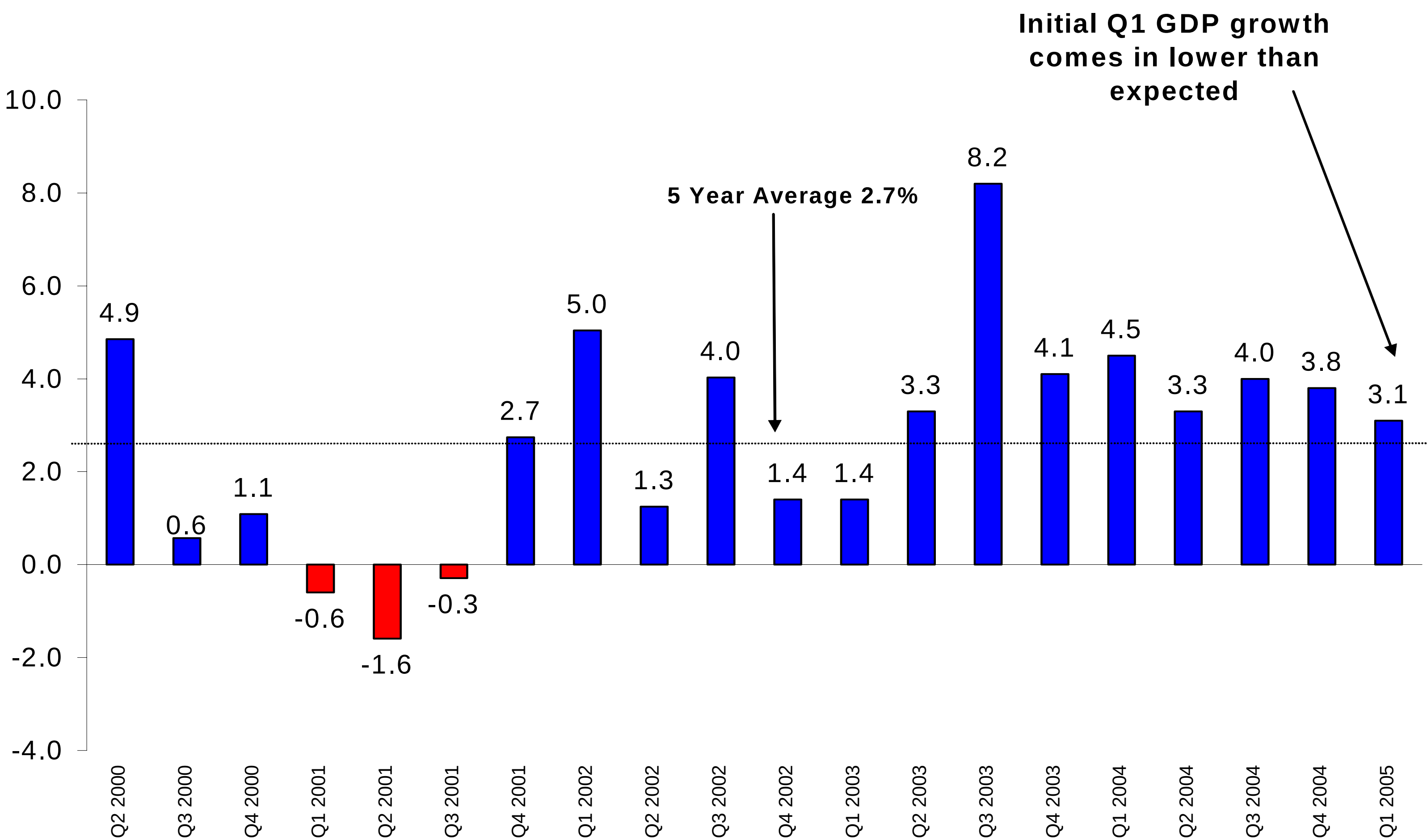
Economic Environment

Economic Growth Was Steady And Moderate

- The economy continued to expand at a steady pace during the quarter, despite a relative slowdown in March. The initial government estimate of the first quarter GDP was 3.1%.
- The unemployment rate fell during the quarter, despite slower than expected job growth in March. The unemployment rate at quarter-end was 5.2%, the lowest level since September 2001.
- Higher oil prices dented consumer confidence, which fell for the second straight month in March, but remained at a higher level than through most of 2004. Retail sales continued to rise, though at a much slower pace than last quarter.
- The housing market remained solid, though the statistics showed a slip in March. Housing starts soared in February to the highest level in over twenty years.

GDP Shows 8 Consecutive Quarters At or Above 5-Year Average



Economic Growth Was Steady And Moderate
Negatives are Starting to Accumulate

- The current recovery is into its fourth year, a point at which many recoveries start to run out of steam. Negatives for the economy are:
  – Higher oil prices. The price of a barrel of oil increased 27.5% during the first quarter. This in turn has produced a wave of price increases throughout the economy.
  – Higher interest rates. Short term rates increased 50 to 70 basis points and the yield curve flattened. Although far from being inverted, which is a very bearish indicator, the flatter yield curve is sending a signal that growth should decline from its strong 2003 and 2004 path.
  – Earning growth is mixed. Many companies are giving warnings about lower earnings in the future.

Economic Growth Was Steady And Moderate
There Continue to be Positives Also

- There are a number of positives to counterbalance the negatives.
  - Employment continues to grow at a very steady, but subpar pace. New unemployment claims are well below levels seen two and three years ago.
  - Industrial production, retail sales, durable goods orders, and housing are still expanding at a moderate pace.
  - Exchange rates should favor U.S. exports
  - Inflation, albeit higher, is not out of control. The Fed has kept monetary growth well in control.

Economic Growth Was Steady And Moderate
Inflation is a Growing Issue

- After settling down in the second half of 2004, inflation regained momentum due to rising oil prices during the first quarter. Recent quarterly and rolling year-over-year changes in CPI show that we have reached a higher level of inflation:

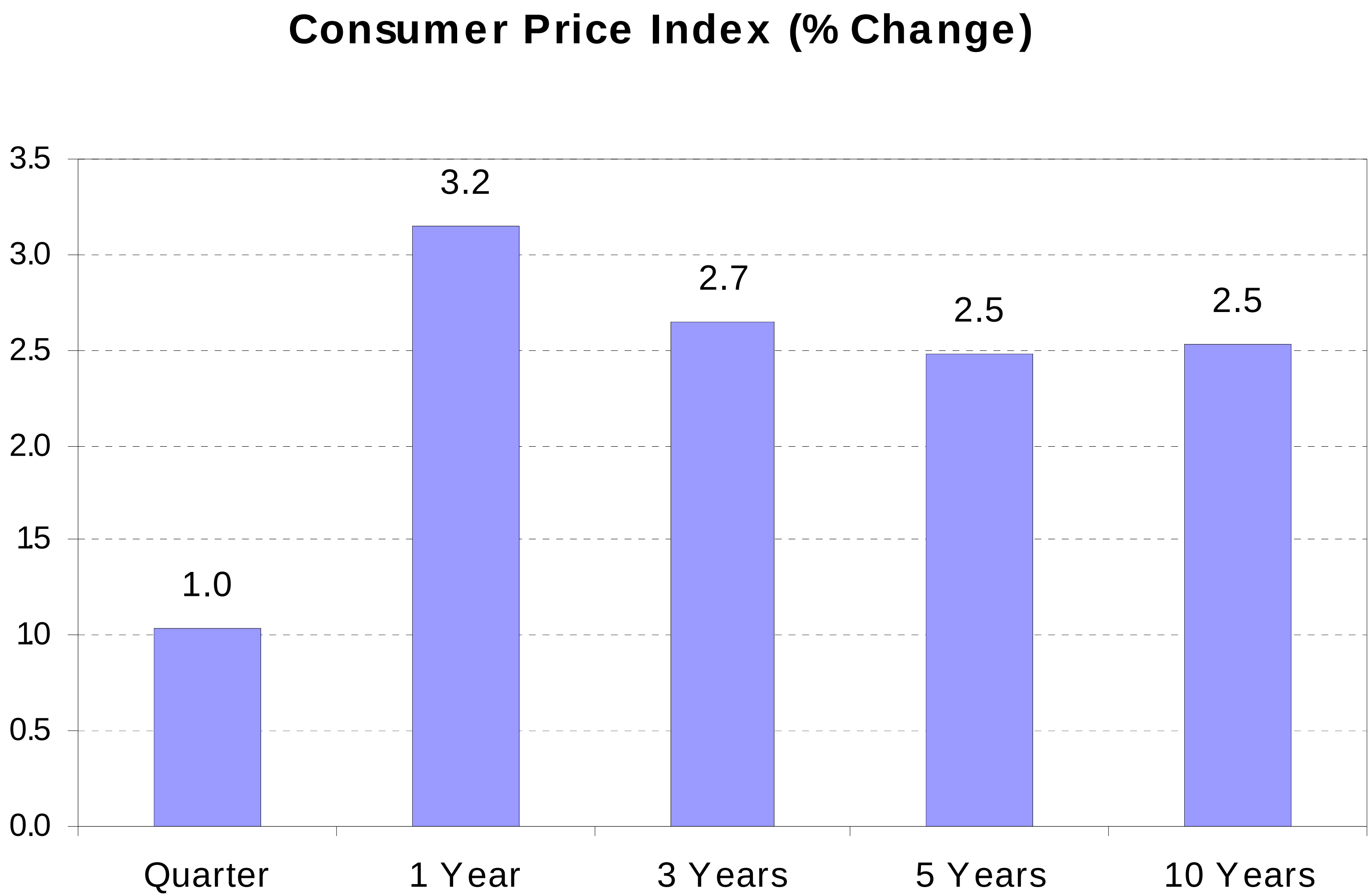
	2004				2005
	1Q	2Q	3Q	4Q	1Q
Quarter Change	1.7%	1.2%	0.1%	0.2%	1.1%
Year-over-Year Change	1.7%	3.3%	2.5%	2.8%	3.1%

- Breakeven inflation as measured by the difference between real and nominal 10 year bond yields remain at 2.7%, up slightly from its level in January.

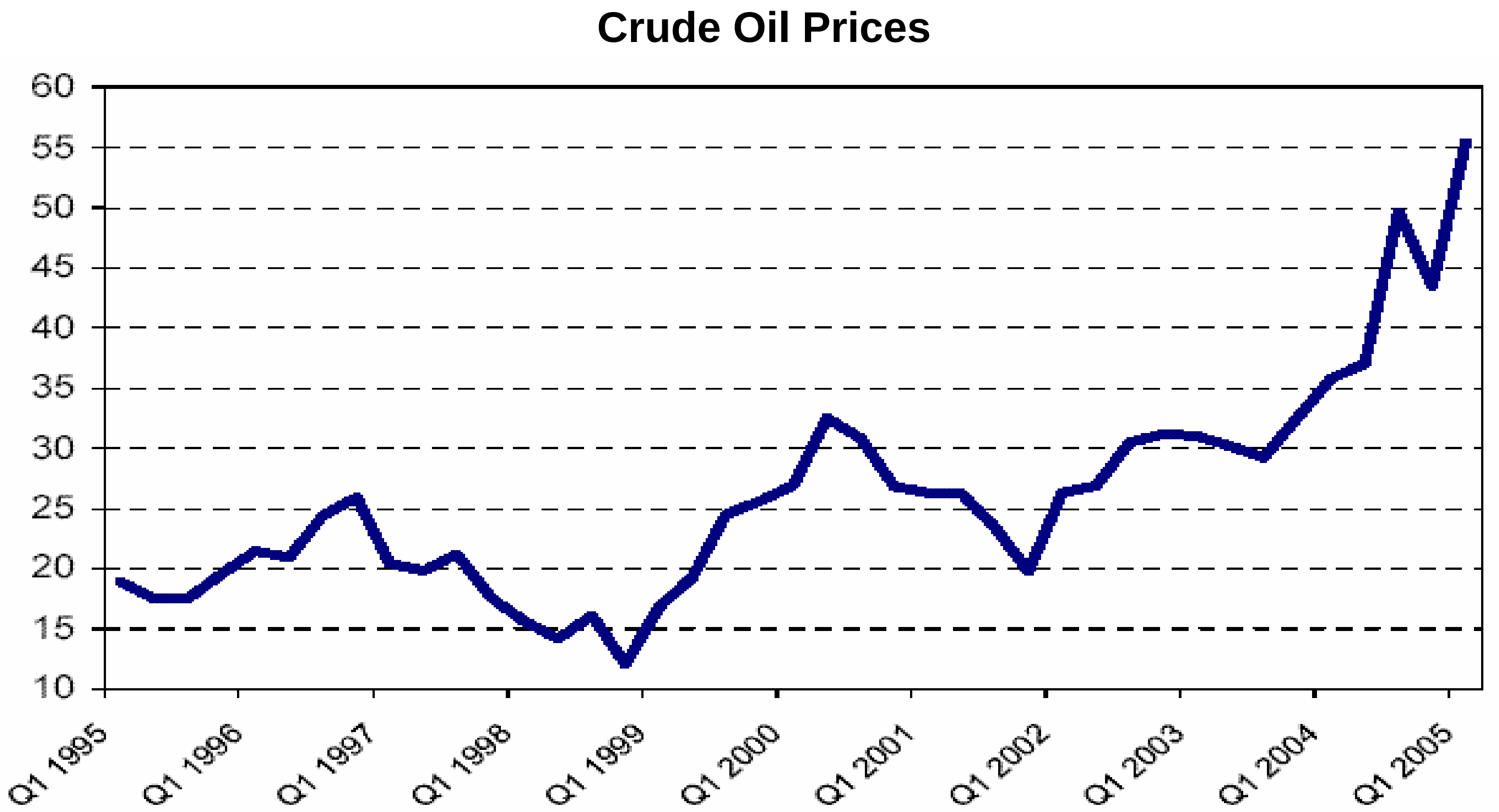
Inflation Anxiety Builds
Increases in Producer and Consumer Prices

- The price of oil soared 27.5% during the quarter, as higher energy costs contributed to a 2.1% jump in the Producer Price Index. Consumer prices also trended higher, with core prices posting the largest increase in two years.
- Other measures of inflation also increased during the quarter. Through February, the Personal Consumption Expenditure Price Index was up 2.3% over the trailing year.
- The Fed raised interest rates by 25 basis points in January and March, pushing the federal funds rate to 2.75%. The fed funds rate is expected to be 3.5% or higher by year-end.
- Going forward, we see no reason to budge from our long term inflation assumption of 2.5% as a reasonable estimate for 2005 inflation.

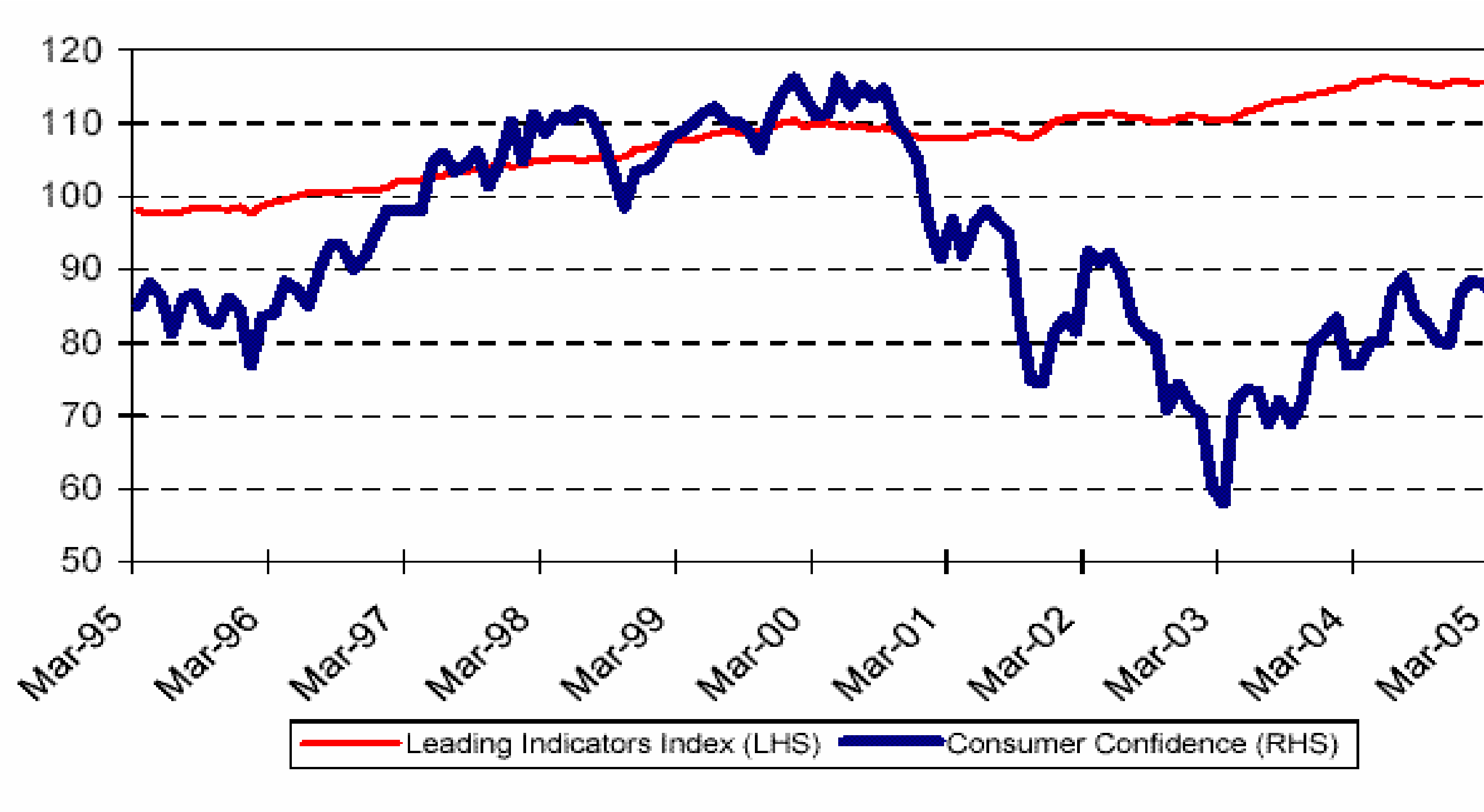
Inflation Anxiety Builds
Increases in Producer and Consumer Prices



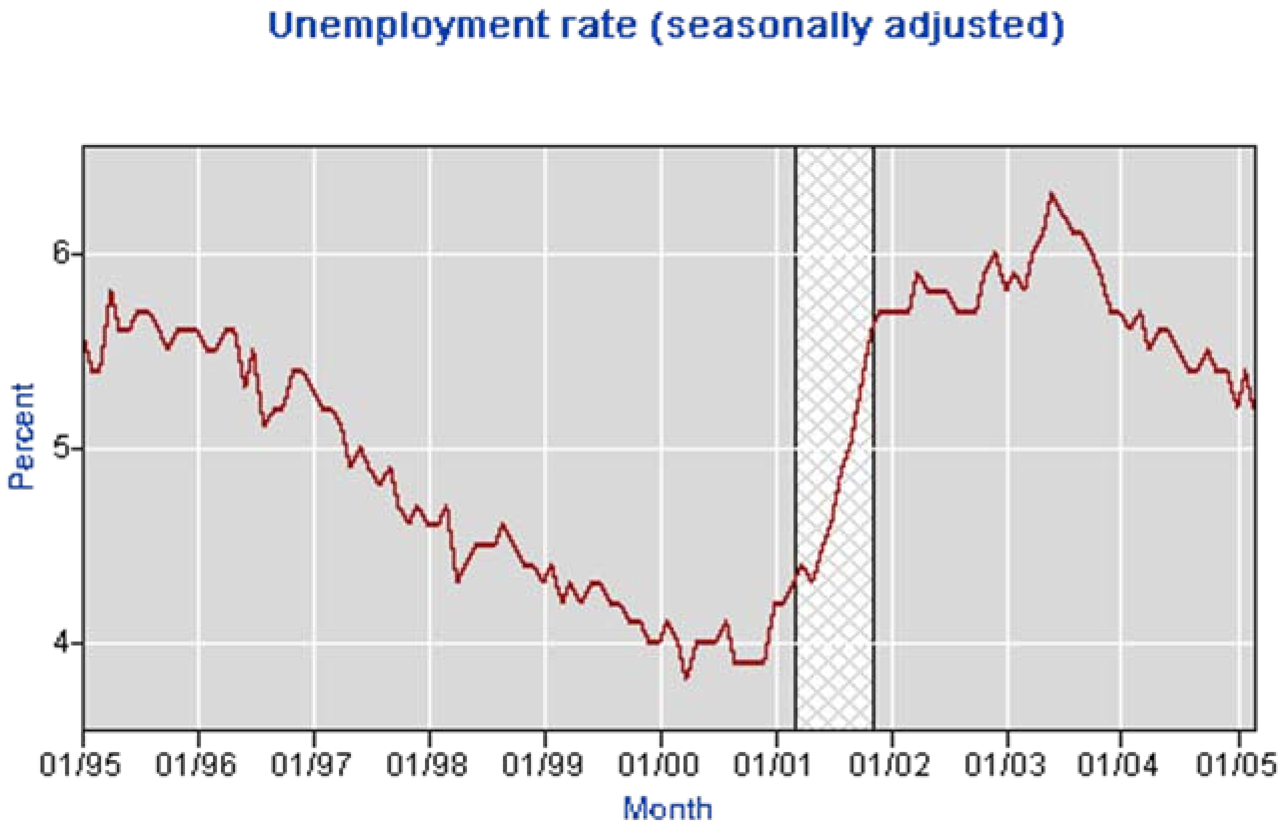
Crude Oil Prices Rose Until the End of Quarter
Price Declined After Quarter End



Consumer Confidence Dipped
Oil Prices, Inflation, and Recession Worries

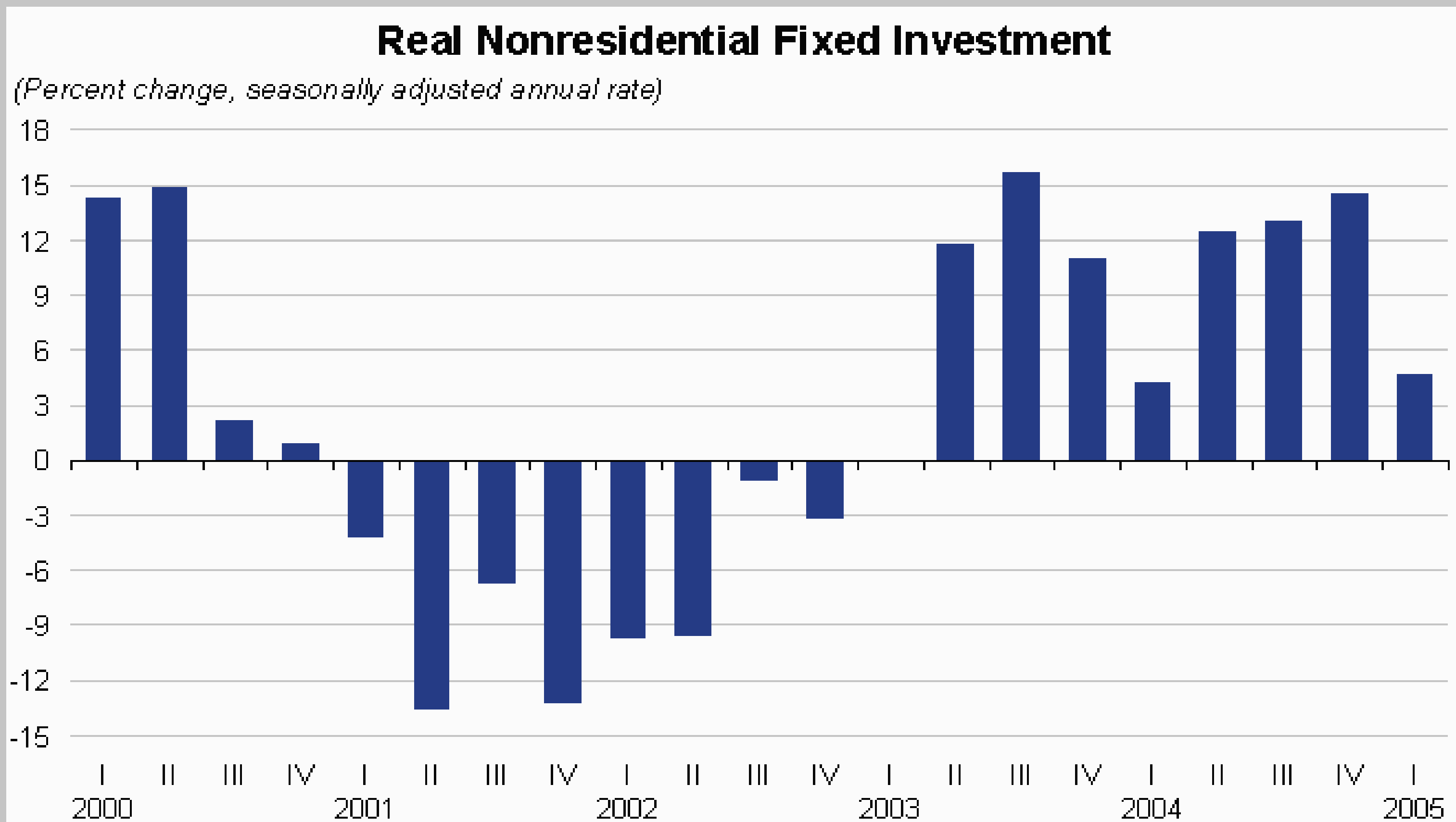


Civilian Unemployment Dips to 5.2%



Note: Cross-hatched area represents recession. Vertical line indicates a break in series in January 1994 due to redesign of the survey.

Business Investment Falls but is Still Positive



U.S. Bureau of Economic Analysis

Dollar Continues to be Volatile

- The dollar advanced against all major currencies during the quarter, increasing over 4% against the Yen and the Euro, the largest quarterly increase versus the Euro in 4 years.
- Though relatively strong GDP growth and rising interest rates provide short-term support, the dollar will come under pressure in the long-term due to the large US trade deficit, which is approaching 6.5% of GDP.

Yield Curve Continues to Flatten

- The Fed raised interest rates 25 basis points in January and March pushing the federal funds rate to 2.75%. The Fed has hiked short-term rates a total of 175 basis points since June 2004.
- The 3-month T-bill yield ended the quarter at 2.79% as short-term rates increased 57 basis points.
- The yield curve ascended during the quarter and continued to flatten as the spread between the 2- and 10-year Treasury yields tightened 46 basis points. The 10-year Treasury yield ended the quarter at 4.5%, up 26 basis points since December.
- The very long end of the yield curve dropped by 5 basis points.

The Fed is Walking a Tightrope

- As expected, the Federal Reserve continues to raise interest rates 25 basis each meeting.
  - The market is expecting this to continue through the next few meetings, bringing the Fed Fund rate to 3.5% by the end of the summer. (Our Fearless Forecast participants projected the Fed Fund rate to rise to 3.2% by the end of the year.)
- We're beginning to see more analysts advocating that the Fed start to slow down its tightening.
  - With a couple of more increases, the Fed will probably achieve a reasonable real yield for T-Bills, at which point the Fed will become very "data-driven". If the economy is strong, then it will continue to raise rates; if there are signs of weakening it will stop.

Long Interest Rates Continue to Surprise

- Long interest rates continue to baffle the market.
  - One of the stories of the first quarter was that hedge funds were front running pension funds at the long end. As soon as they saw that the administration was proposing a closer link between pension liabilities, hedge funds bought long bonds driving their yields downward.
  - Mercantilist actions of Asian Central Banks continue to maintain low long interest rates.
- We continue to view a 10-year yield of 4.5% to 4.9% as quite consistent with the underlying economic data.
- Corporate spreads are still extremely low, reflecting the improved balance sheets of the private sector. They should rise back up to their historic averages over the year.

Foreign Economies are a Mixed-Picture

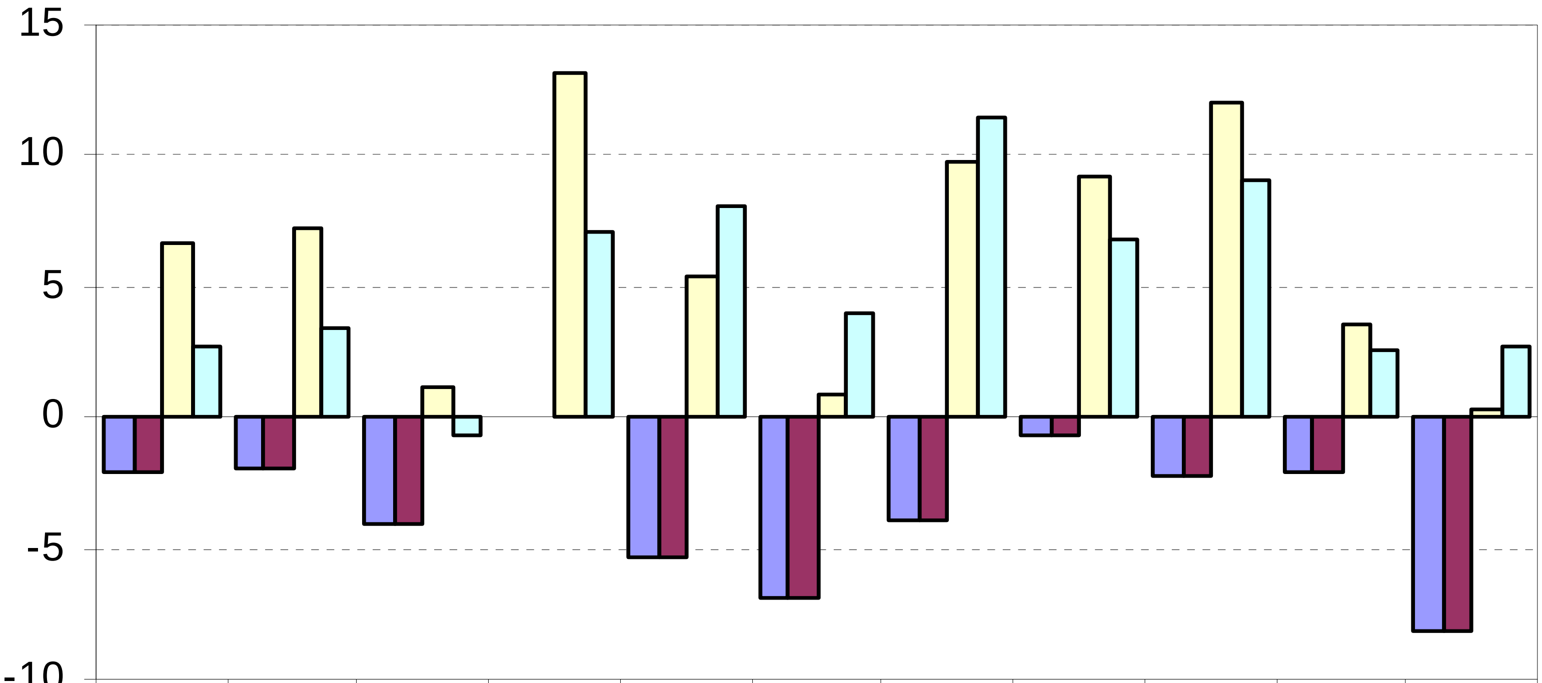
- Europe Lumbering Along Below Its Potential
  - GDP is still weak with few analysts expecting an increase in growth.
  - Long interest rates in Europe are now significantly below US rates, but with inflation expectations around 2.0%, they are probably too high to spur growth. Europe is plagued by an inconstancy in its monetary and fiscal policies: the European Central Bank is fighting inflation, while the governments are inducing demand driven (not supply-side) fiscal stimuli.
- Asia: Still Strong
  - Chinese growth is quite robust, as is India's. Asia and the US consumer continue to the global engines of growth.
  - Japanese growth continues to move sideways: low growth and no inflation.

Securities Markets

US Equity Markets
Equity Markets Fall During the First Quarter

- The stock market faltered during the first quarter amid concerns over weaker earnings, higher interest rates, rising oil prices, and increased inflation. The S&P 500 Index was down 2.1%, while the broader Russell 1000 Index fell 1.9%.
- Small cap stocks underperformed large caps during the quarter as the Russell 2000 Index declined 5.3%. Small cap growth stocks, down 6.8%, were the poorest performing market segment.
- Large cap value stocks outperformed large growth stocks by a wide margin as the Russell 1000 Value Index edged up 0.1%, while the Russell 1000 Growth Index fell 4.1%.
- Commodity-driven sectors led the market as other energy and integrated oils posted gains of 19.1% and 17.7%, respectively.

US Equity Markets
Index Performance



	S&P 500	Russell 1000	Russell 1000 Growth	Russell 1000 Value	Russell 2000	Russell 2000 Growth	Russell 2000 Value	S&P Mid Cap*	S&P Small Cap*	DJIA	Nasdaq
Quarter	-2.15	-1.91	-4.09	0.09	-5.34	-6.83	-3.98	-0.67	-2.29	-2.06	-8.10
YTD	-2.15	-1.91	-4.09	0.09	-5.34	-6.83	-3.98	-0.67	-2.29	-2.06	-8.10
1 Year	6.69	7.24	1.16	13.17	5.41	0.87	9.79	9.16	12.07	3.59	0.25
3 Year	2.75	3.35	-0.69	7.16	8.05	4.01	11.48	6.78	9.02	2.55	2.71

Returns are Mostly Negative

- Large and mid-value were the only segments with positive results
- Small cap, particularly growth, significantly underperformed

1Q05	Value	Core	Growth
Large	**0.09**	**-1.91**	**-4.09**
Mid	**0.77**	**-0.26**	**-1.67**
Small	**-3.99**	**-5.35**	**-6.83**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

One-Year Returns Are Still Generally Good

- Large and small cap growth improves but continues to lag the broad market
- Value is the place to be!

1-Year Returns	**Value**	**Core**	**Growth**
Large	**13.16**	**7.24**	**1.16**
Mid	**18.31**	**14.03**	**8.31**
Small	**9.78**	**5.41**	**0.86**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Three-Year Results Show Wide Variations

- Returns are below long-term expectations for growth
  - Large Cap Growth is negative
- Value is superior to other styles

3-Year Returns	Value	Core	Growth
Large	7.15	3.36	-0.68
Mid	12.95	10.54	6.21
Small	11.51	8.06	4.01
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Cumulative Three-Year Results Are Strong

- Returns for all but large cap growth are excellent
- Small value stocks increased by more than 38%

Cumulative 3-Yr	Value	Core	Growth
Large	**23.02**	**10.42**	**-2.03**
Mid	**44.10**	**35.07**	**19.81**
Small	**38.66**	**26.18**	**12.52**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Five-Year Results Show Wide Variations

- Returns are negative for growth
  - Large Cap Growth is very negative
- Value, particularly small value, is superior to other styles

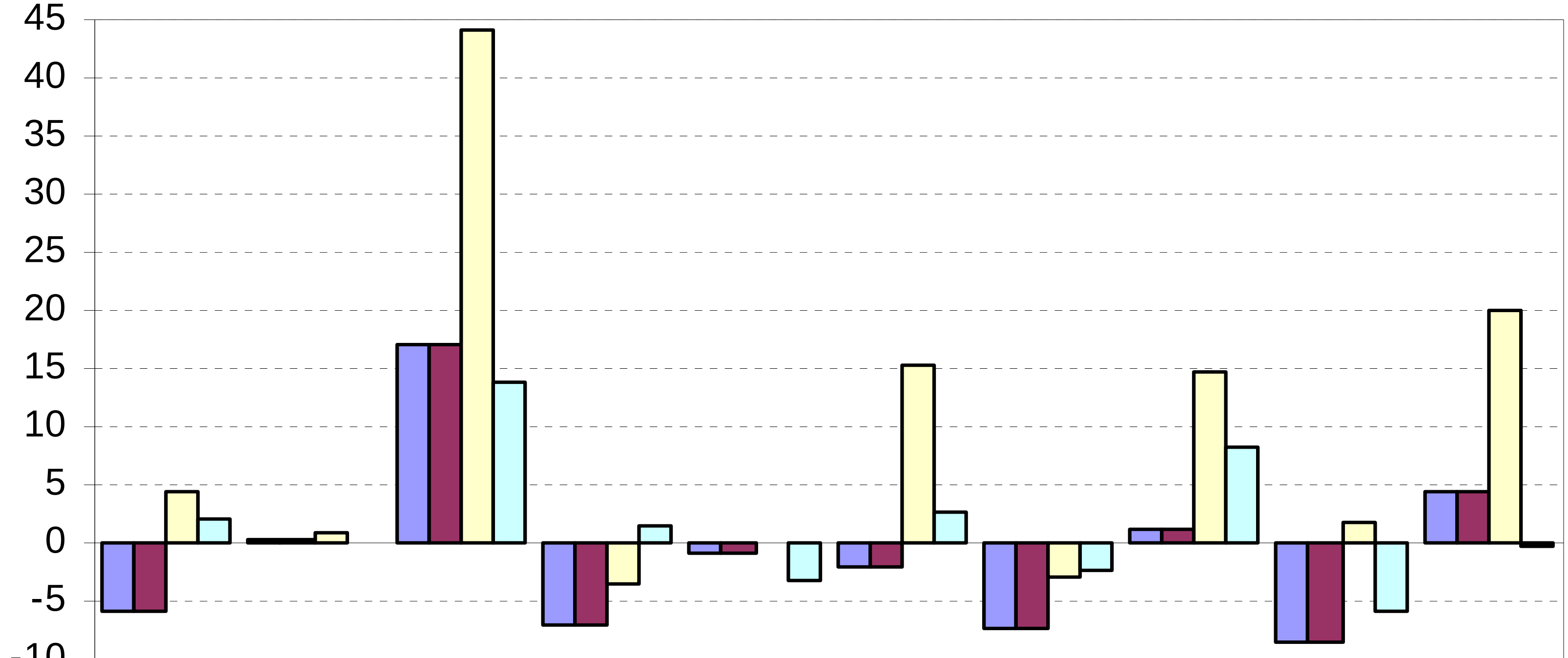
5-Year Returns	Value	Core	Growth
Large	**5.16**	**-2.96**	**-11.26**
Mid	**13.42**	**5.50**	**-7.29**
Small	**15.47**	**4.06**	**-6.56**
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

Cumulative Five-Year Results Extremely Different Depending on Market Segment

- Large growth stocks lost nearly 45% of their value
- Small value stocks increased by more than 100%!

Cumulative 5-Yr	Value	Core	Growth
Large	28.60	-13.95	-44.97
Mid	87.69	30.70	-31.51
Small	105.28	22.02	-28.77
Note: Russell 1000, Mid-Cap, 2000 Indices: Value, Core, Growth			

US Equity Markets
Sector Returns



	Cons. Discr.	Cons. Stpls.	Energy	Financl.	Health Care	Industrials	Tech.	Materials	Telecom	Utilities
Quarter	-5.89	0.16	17.06	-6.96	-1.02	-2.04	-7.47	1.27	-8.61	4.44
YTD	-5.89	0.16	17.06	-6.96	-1.02	-2.04	-7.47	1.27	-8.61	4.44
1 Year	4.46	1.01	44.12	-3.43	0.11	15.24	-2.97	14.81	1.76	19.93
3 Year	2.05	0.05	13.72	1.50	-3.26	2.77	-2.24	8.10	-5.84	-0.34

US Equity Markets
Top Positive and Negative Contributors

Stock	Return (%)	End of Quarter Weight	Rank
EXXON MOBIL CORP	16.80%	3.49%	2
CONOCOPHILLIPS	24.77%	0.68%	27
CHEVRONTEXACO CORP	11.81%	1.12%	15
JOHNSON & JOHNSON	6.35%	1.82%	6
ALTRIA GROUP INC	8.22%	1.23%	12
APPLE COMPUTER INC	29.41%	0.31%	71
VALERO ENERGY CORP NEW	61.56%	0.17%	134
WALGREEN CO	15.90%	0.41%	58
HCA INC	34.38%	0.21%	105
GILLETTE CO	13.09%	0.46%	51
BOEING CO	13.41%	0.42%	57
OCCIDENTAL PETE CORP DEL	22.48%	0.26%	84
UNOCAL CORP	43.13%	0.15%	163
UNITEDHEALTH GROUP INC	8.38%	0.56%	39
DEVON ENERGY CORP NEW	22.88%	0.21%	103
TXU CORP	24.21%	0.17%	129
AETNA INC NEW	20.16%	0.20%	108
APACHE CORP	21.24%	0.18%	123
MARATHON OIL CORP	25.50%	0.15%	162
KERR MCGEE CORP	36.32%	0.11%	220
WELLPOINT INC	9.00%	0.35%	66
3M CO	4.92%	0.61%	33
EOG RES INC	36.77%	0.11%	231
CVS CORP	16.91%	0.19%	114
HEWLETT PACKARD CO	5.01%	0.58%	36

Stock	Return (%)	End of Quarter Weight	Rank
EBAY INC	-35.95%	0.47%	51
MICROSOFT CORP	-9.24%	2.48%	2
AMERICAN INTL GROUP INC	-15.43%	1.36%	10
FEDERAL NATL MTG ASSN	-23.17%	0.50%	46
CITIGROUP INC	-5.81%	2.20%	3
JPMORGAN & CHASE & CO	-10.43%	1.16%	13
UNITED PARCEL SERVICE INC	-14.50%	0.77%	22
VERIZON COMMUNICATIONS	-11.42%	0.93%	18
INTERNATIONAL BUSINESS MACHS	-7.12%	1.42%	8
WAL MART STORES INC	-4.85%	2.00%	4
BIOGEN IDEC INC	-48.19%	0.11%	233
BANK OF AMERICA CORPORATION	-5.19%	1.68%	7
HOME DEPOT INC	-10.29%	0.79%	21
QUALCOMM INC	-13.44%	0.57%	39
CISCO SYS INC	-7.40%	1.09%	15
DELL INC	-8.83%	0.90%	19
TIME WARNER INC	-9.77%	0.76%	24
AMGEN INC	-9.26%	0.69%	28
FEDERAL HOME LN MTG CORP	-13.77%	0.41%	62
ORACLE CORP	-9.04%	0.60%	34
E M C CORP MASS	-17.15%	0.28%	81
AMERICAN EXPRESS CO	-8.44%	0.60%	33
FORD MTR CO DEL	-21.93%	0.20%	118
SBC COMMUNICATIONS INC	-6.82%	0.74%	25
GENERAL MTRS CORP	-25.39%	0.16%	153

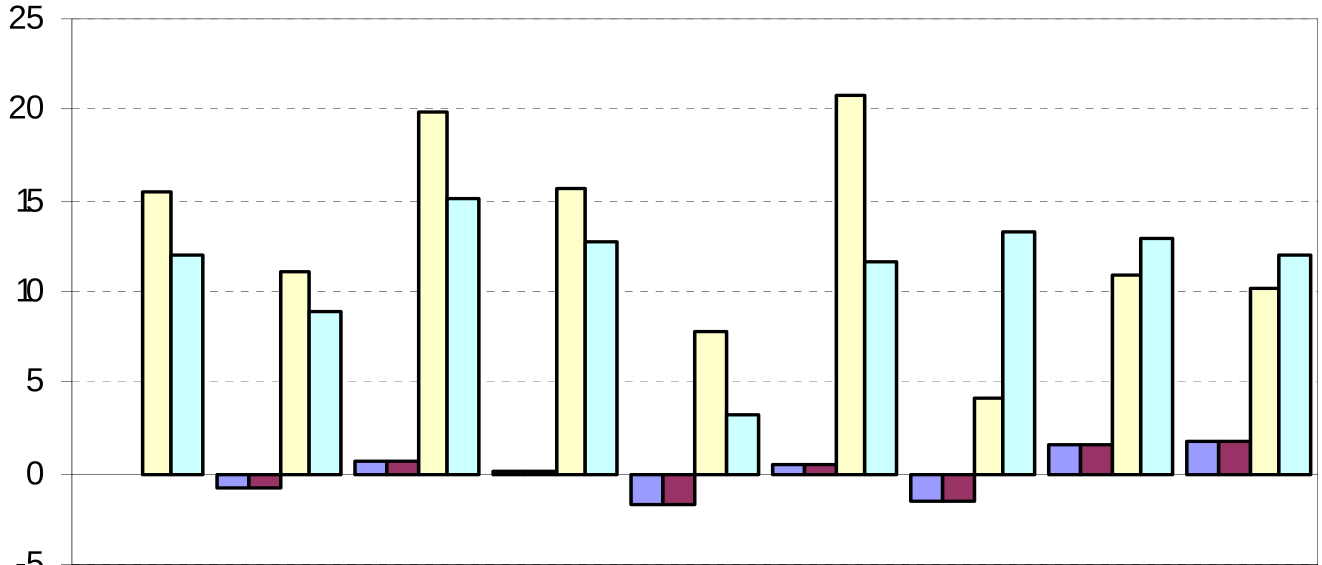
Utilities | Cons. Non Durables/Services | Cap Goods | Financials | Health Care | Basic Inds | Info. Tech | Energy | Cons Durables | Transportation

Non-US Equity Markets
International Markets Are Better Than Domestic Equities

- Performance was relatively flat for the international equity markets as the MSCI EAFE Index inched down 0.1%. In local currency terms, the Index gained 3.4%. The Euro depreciated 4.4% versus the U.S. dollar, while the yen fell 4.2%.
- The Pacific region was down 1.5% during the quarter. Hong Kong, down 4.2%, posted the weakest results followed by Japan which lost 2.3%. The Pacific-ex-Japan returned 0.6%.
- The European region eked out a 0.5% gain for the quarter. Performance was mixed across the region as Germany was down 2.2%.
- Emerging markets continued to lead most developed markets as the MSCI EMF Index gained 1.9% during the quarter. Emerging Europe & Middle East gained 4.3%, while Emerging Asia and Latin America were up 3.0% and 2.3%, respectively.

Non-US Equity Markets
EAFE Regional Performance

MSCI Regional Index Returns (US$)

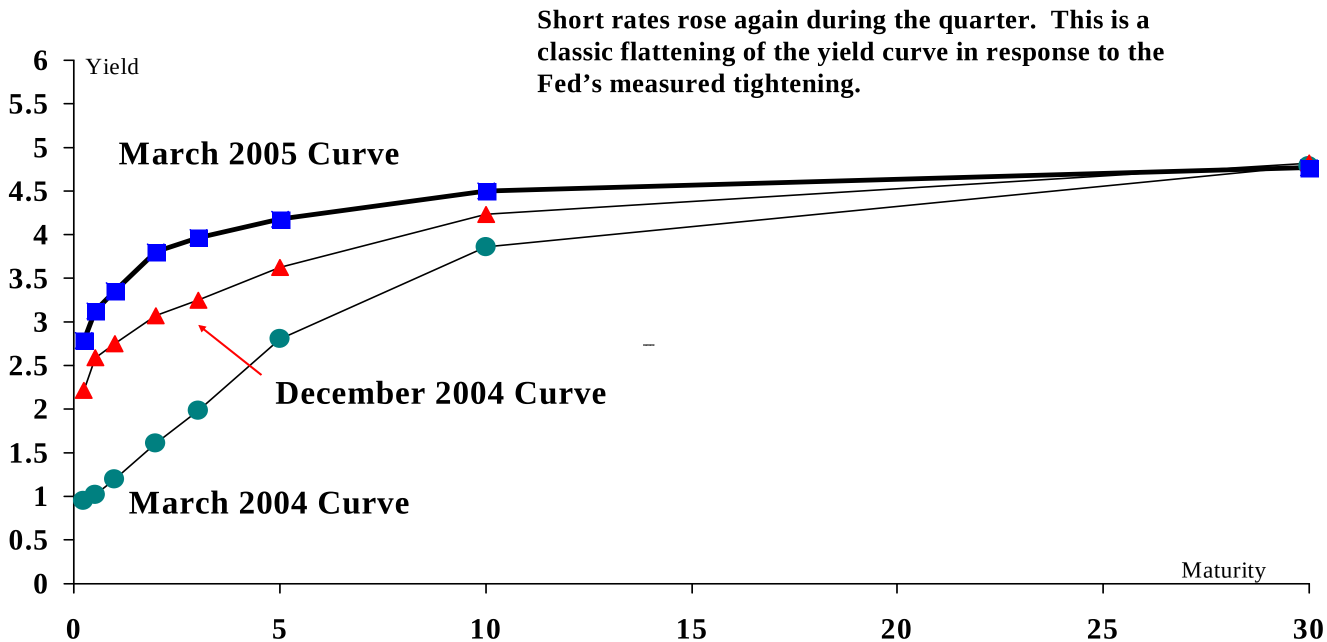


	EAFE (Free)	EAFE Growth	EAFE Value	EAFE & EMF	North America	Europe	Pacific (incl. Japan)	AC Asia (Free) ex Japan	AC Far East (Free) ex
Quarter	-0.10	-0.81	0.60	0.13	-1.72	0.52	-1.54	1.56	1.82
YTD	-0.10	-0.81	0.60	0.13	-1.72	0.52	-1.54	1.56	1.82
1 Year	15.49	11.06	19.90	15.70	7.79	20.88	4.11	10.85	10.27
3 Year	12.06	8.99	15.09	12.74	3.28	11.64	13.23	12.95	12.04

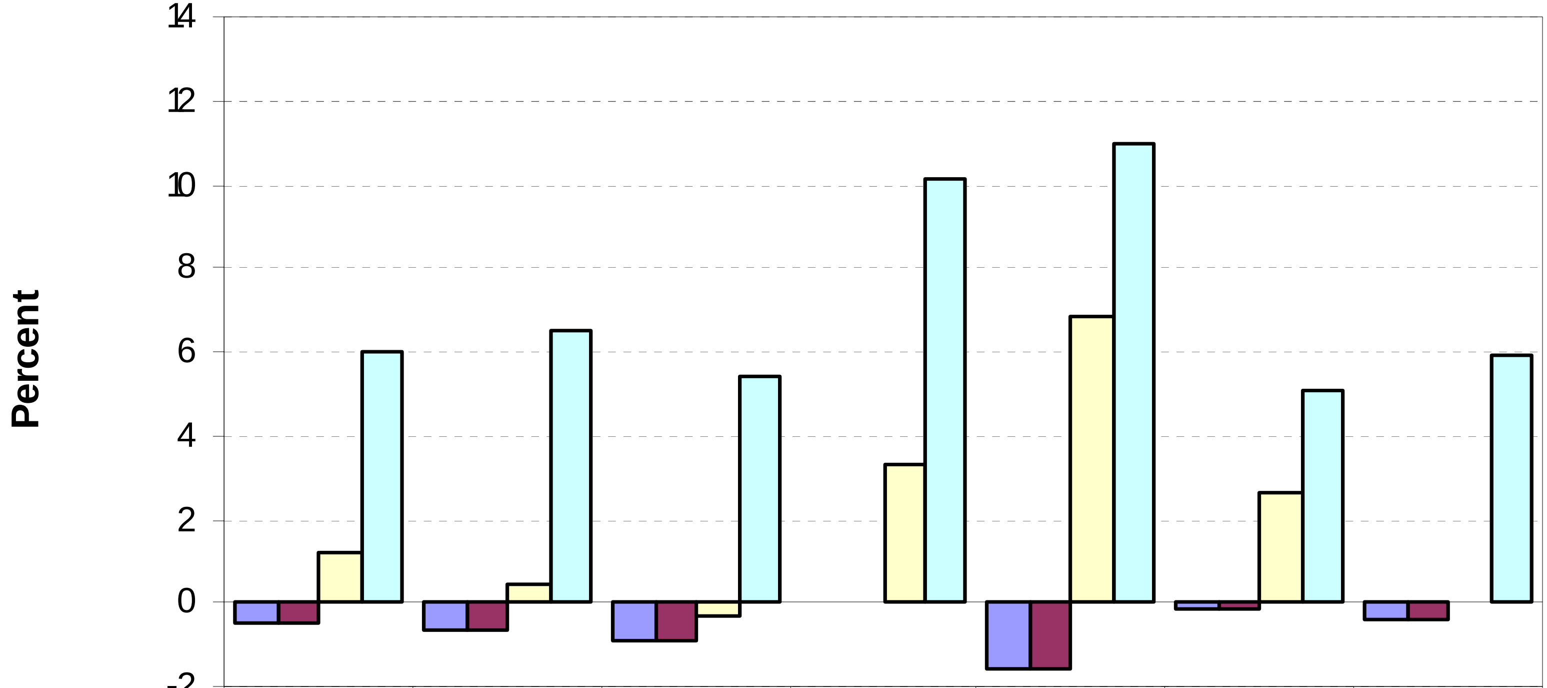
Fixed Income Markets
Inflation Concerns Negatively Impact the Bond Market

- The investment-grade bond market declined as soaring oil prices and inflation fears pushed up yields. The Lehman Brothers Aggregate Bond Index, down 0.5%, suffered its second worst quarterly return in five years.
- The Lehman Brothers Treasury Index was down 0.4% for the quarter. Long-term Treasuries, up 0.5%, outperformed intermediate-term Treasuries, which fell 0.8%.
- Credits were the poorest performing spread sector as the Lehman Brothers Credit Index lost 1.1%. In general, long-term bonds outperformed intermediate-term maturity issues and higher quality bonds outperformed lower rated securities.
- The Lehman Brothers MBS Index, down 0.1%, was the best performing sector during the quarter. Thirty-year mortgage rates climbed to 6.01% in March, an eight-month high.

Yield Curve Flattened
Short Rates Continue to Rise While Long Rates Were Unchanged



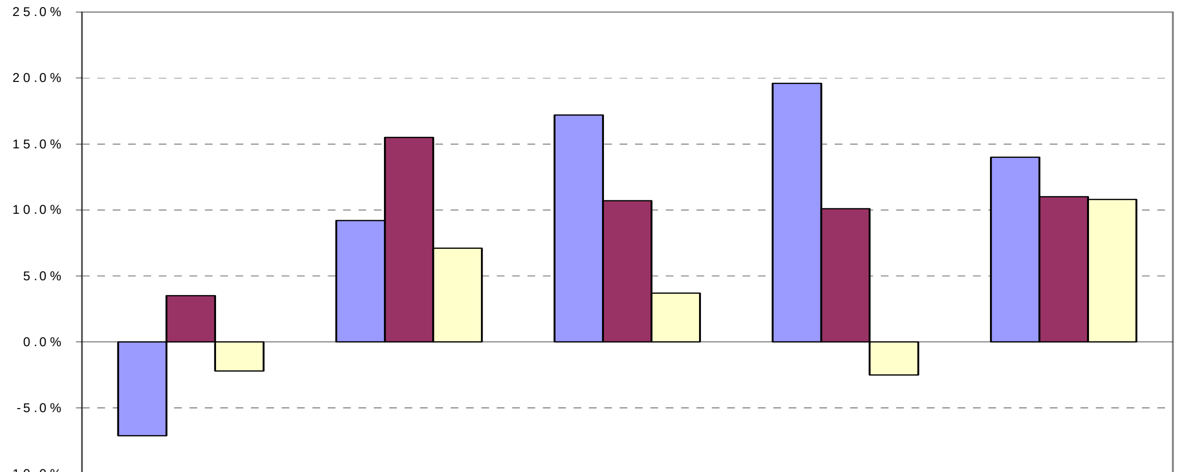
Fixed Income Markets
Index Performance



	Lehman Aggregate	Lehman Gov/Corp	Lehman Gov/Corp Int	Lehman Gov/Corp Long	Lehman High Yield	Lehman Mortgage Backed	Lehman Treasury
Quarter	-0.47	-0.67	-0.88	0.03	-1.61	-0.12	-0.43
YTD	-0.47	-0.67	-0.88	0.03	-1.61	-0.12	-0.43
1 Year	1.16	0.41	-0.34	3.34	6.84	2.60	0.04
3 Year	6.00	6.52	5.45	10.15	11.01	5.08	5.93

Equity REITs Tumble During Q1
Private Real Estate Posts Solid Gain

- Real Estate Investment Trusts retreated during the first quarter, as the NAREIT Equity REIT Index lost 7.1% on the heels of a 31.6% gain in 2004 and a 37.1% advance in 2003. The healthcare and industrial property sectors suffered the worst losses for the quarter, losing 11.2% and 10.5%, respectively.
- Returns for the private real estate market remained strong, as the NCREIF Property Index gained 3.5% for the quarter, with the East posting the largest gains on a regional basis.
- Homebuilding was robust, with housing starts surging to their highest level in over twenty years in February.



	Quarter	1-Year	3-Year	5-Year	10-Year
NAREIT - Equity	-7.1%	9.2%	17.2%	19.6%	14.0%
NCREIF	3.5%	15.5%	10.7%	10.1%	11.0%
Russell 3000	-2.2%	7.1%	3.7%	-2.5%	10.8%

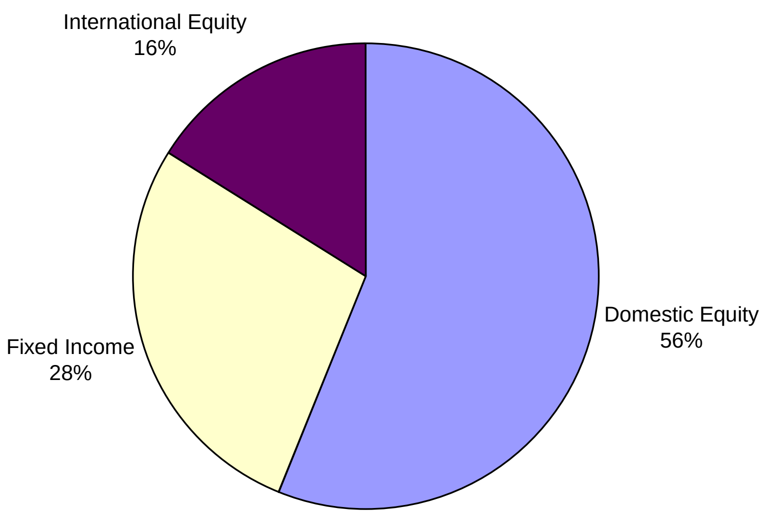
Mercer IC's Capital Market Assumptions
January 2005 Expected Long-Term Return and Risk Assumptions

Asset Class	Mercer Current Assumptions		Mercer Historical Assumptions			
	Expected Return January 2005	Standard Deviation	Expected Return January 2004	Expected Return January 2003	Expected Return January 2002	Expected Return January 2001
US Equities						
All Cap	8.2%	18.6%	8.3%	8.3%	9.5%	9.5%
Large Cap	8.0%	18.0%	8.0%	8.0%	9.3%	9.3%
Small Cap	8.4%	24.0%	8.6%	8.6%	8.8%	10.0%
International Equities						
World x-US	8.4%	21.5%	8.5%	8.5%	8.8%	9.9%
Developed Markets	8.2%	21.9%	8.3%	8.3%	8.5%	9.5%
Emerging Markets	8.6%	28.0%	8.7%	8.7%	9.0%	10.1%
US Fixed Income						
Aggregate	4.9%	6.0%	4.5%	4.5%	4.5%	6.4%
High Yield	5.5%	12.0%	5.9%	5.9%	7.5%	8.8%
Inflation Indexed Bonds	4.2%	4.5%	4.0%	4.0%	5.0%	6.3%

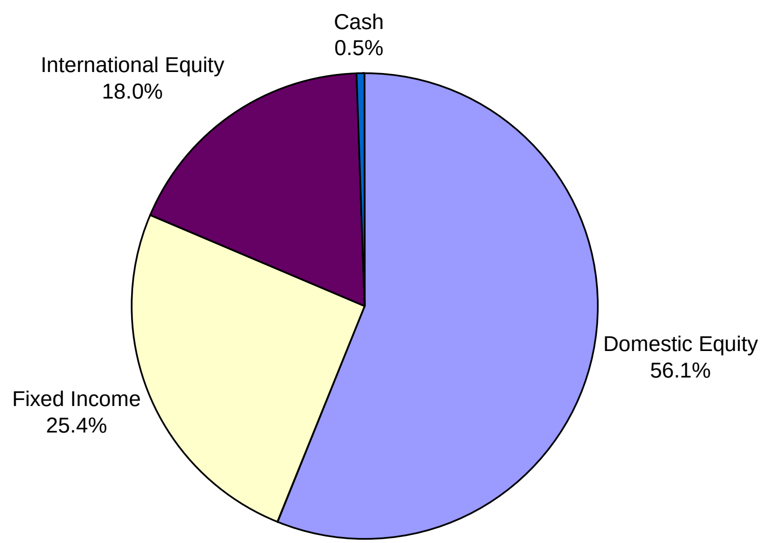
ASRS Total Fund Performance

Total Fund Asset Allocation
March 31, 2005

Policy Adjusted for Transition into Real Estate

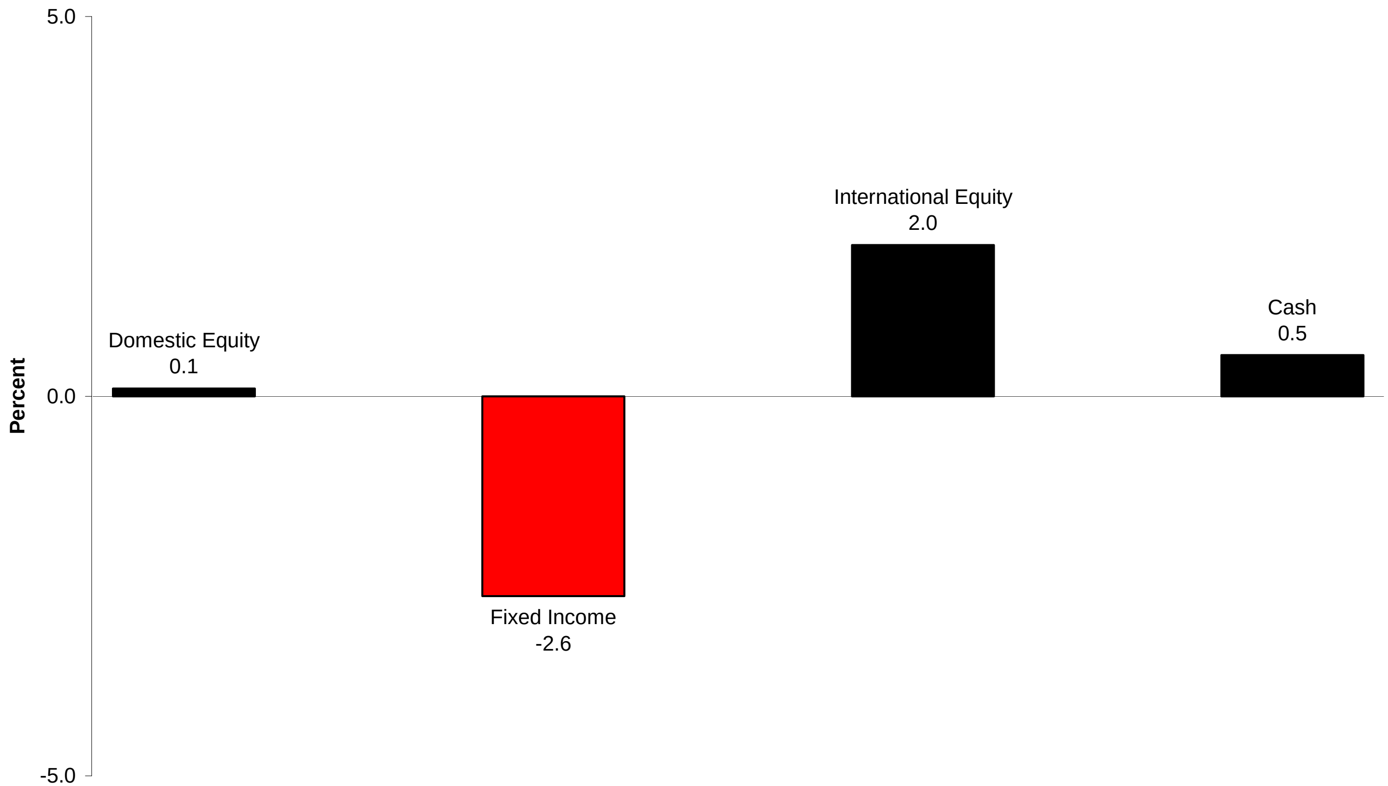


Actual Asset Allocation



Total Fund Asset Allocation
March 31, 2005

Actual Asset Allocation vs. Policy Adjusted for Transition into Real Estate



Total Fund Performance
For Periods Ending March 31, 2005

	Quarter	1 Year	3 Years	5 Years	10 Years	Inception (6/30/75)
Total Fund	-1.3%	6.7%	6.2%	1.6%	10.0%	10.9%
Benchmark*	-1.3	6.6	5.7	0.7	8.7	9.2
Excess Return	0.0	0.1	0.5	0.9	1.3	1.7

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.

Policy History:
• 1/1/89-12/31/91 – 60% S&P 500/40% LB Aggregate
• 1/1/92-12/31/94 – 50% S&P 500/40% LB Aggregate/10% EAFE
• 1/1/95-6/30/97 – 45% S&P 500/40% LB Aggregate/15% EAFE
• 7/1/97-12/31/99 – 50% S&P 500/35% LB Aggregate/15% EAFE
• 1/1/00-9/30/03 – 53% S&P 500/30% LB Aggregate/17% EAFE
• 10/1/03-present – 53% S&P 500/26% LB Aggregate/15% EAFE/6% Custom Real Estate Benchmark.

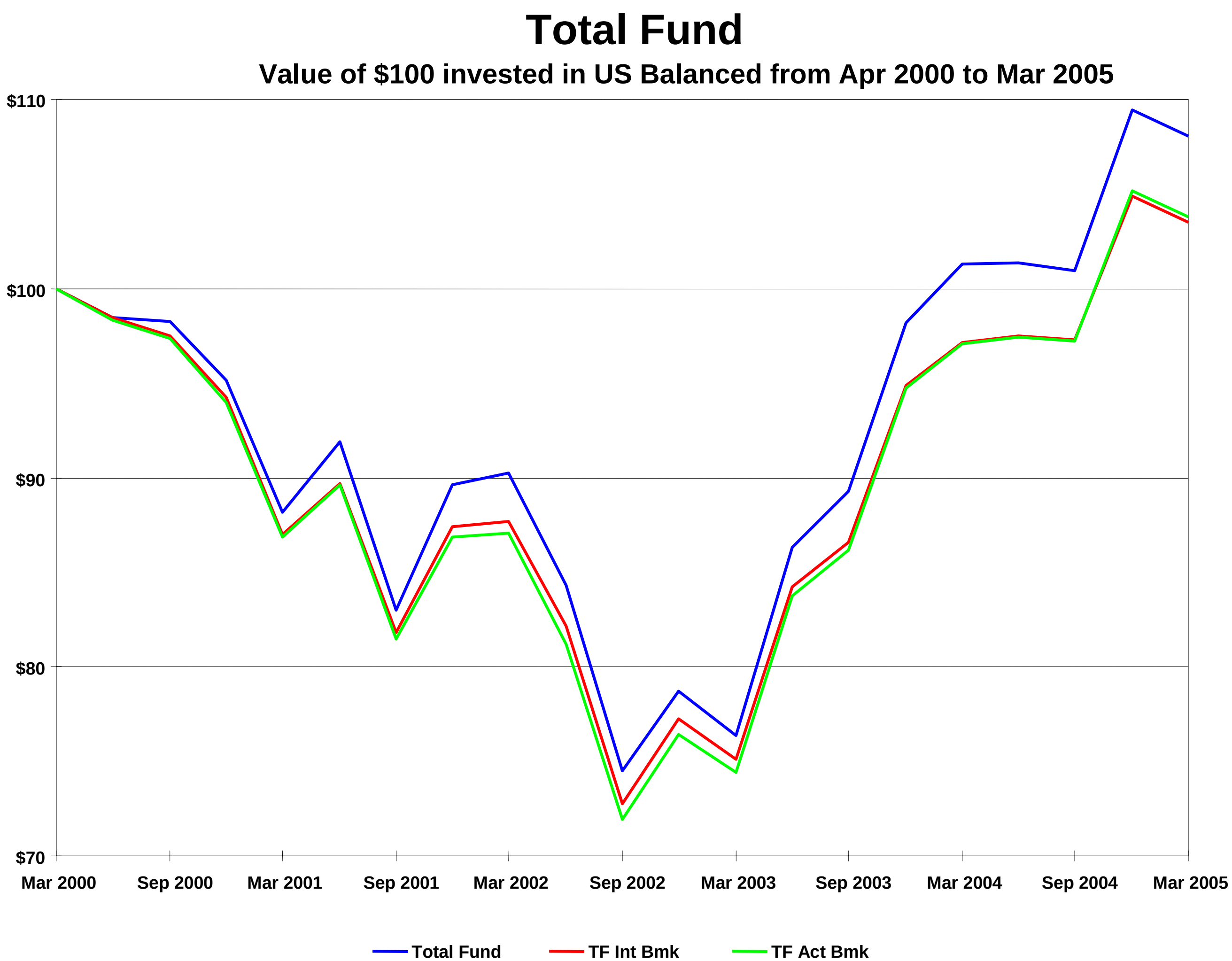
Total Fund Ranking
For Periods Ending March 31, 2005

	1 Year	3 Years	5 Years	10 Years
Russell/Mellon Trust Universes				
Master Trust Funds - Total Funds	59	63	76	45
Total Funds - Public	72	86	93	34
Total Funds Billion Dollar - Public	81	90	100	40
Total Funds - Corporate	58	58	70	45
Wilshire Trust Universe Comparison Service				
Master Trusts - All	53	67	74	62
Public Funds	50	73	77	37
Corporate	57	64	69	73
Callan Associates Inc.				
Total Funds	56	62	82	45
Public Funds	49	72	88	23
Corporate Funds	43	56	78	56

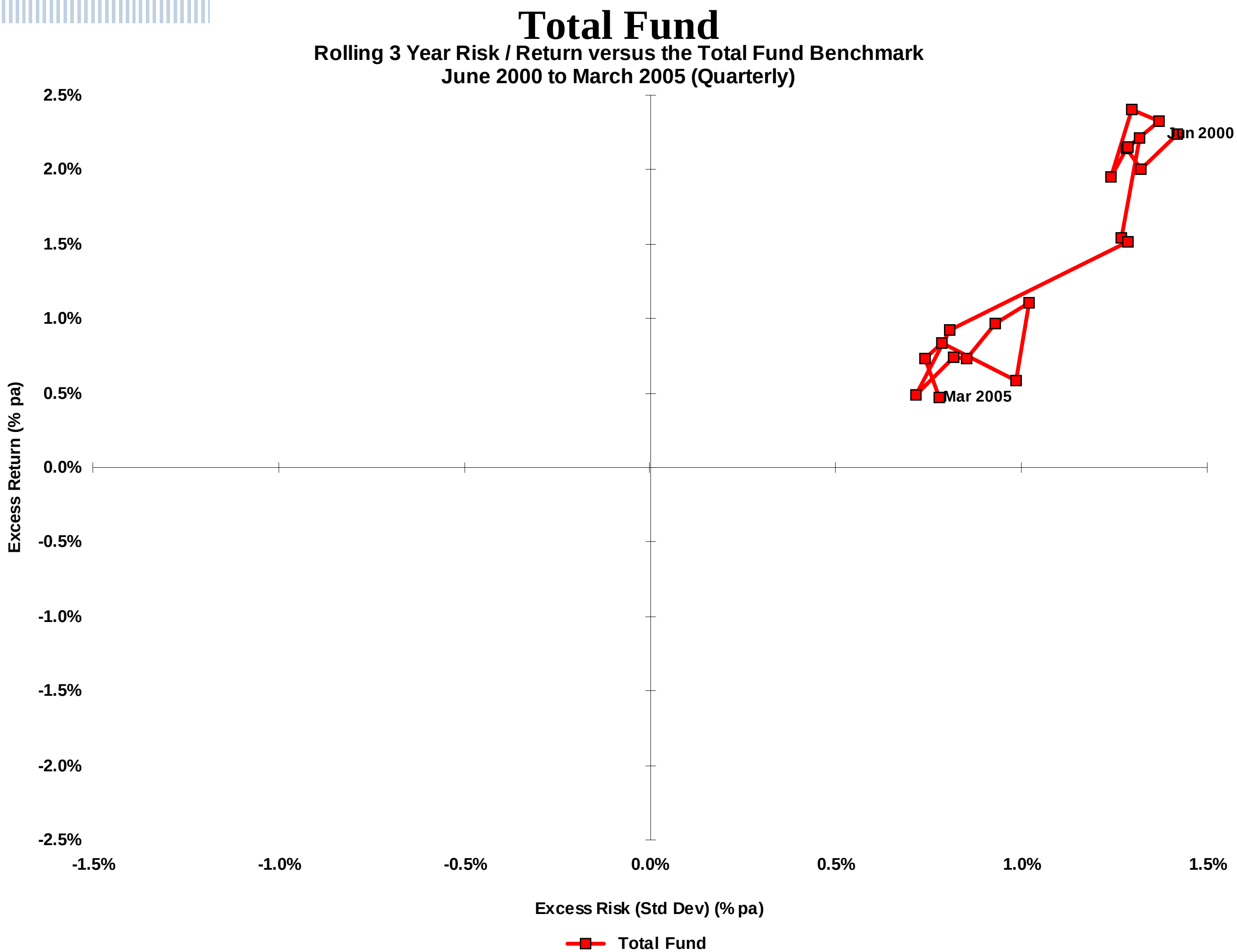
Total Fund Performance
For Periods Ending March 31, 2005

		1 Year	3 Years	5 Years	10 Years
	ASRS Total Fund	6.7%	6.2%	1.6%	10.0%
1)	Asset Allocation Target	7.4%	7.9%	8.1%	8.6%
	Excess Return	-0.7%	-1.7%	-6.5%	1.4%
2)	CPI Inflation + 3.75%	6.9%	6.4%	6.2%	6.2%
	Wage Inflation + 3.75%	5.7%	7.0%	7.0%	7.0%
	Excess Return - CPI	-0.2%	-0.2%	-4.6%	3.8%
	Excess Return - Wage	1.1%	-0.8%	-5.4%	3.1%
3)	Actuarial Assumption	8.0%	8.0%	8.0%	8.0%
	Excess Return	-1.3%	-1.8%	-6.4%	2.0%

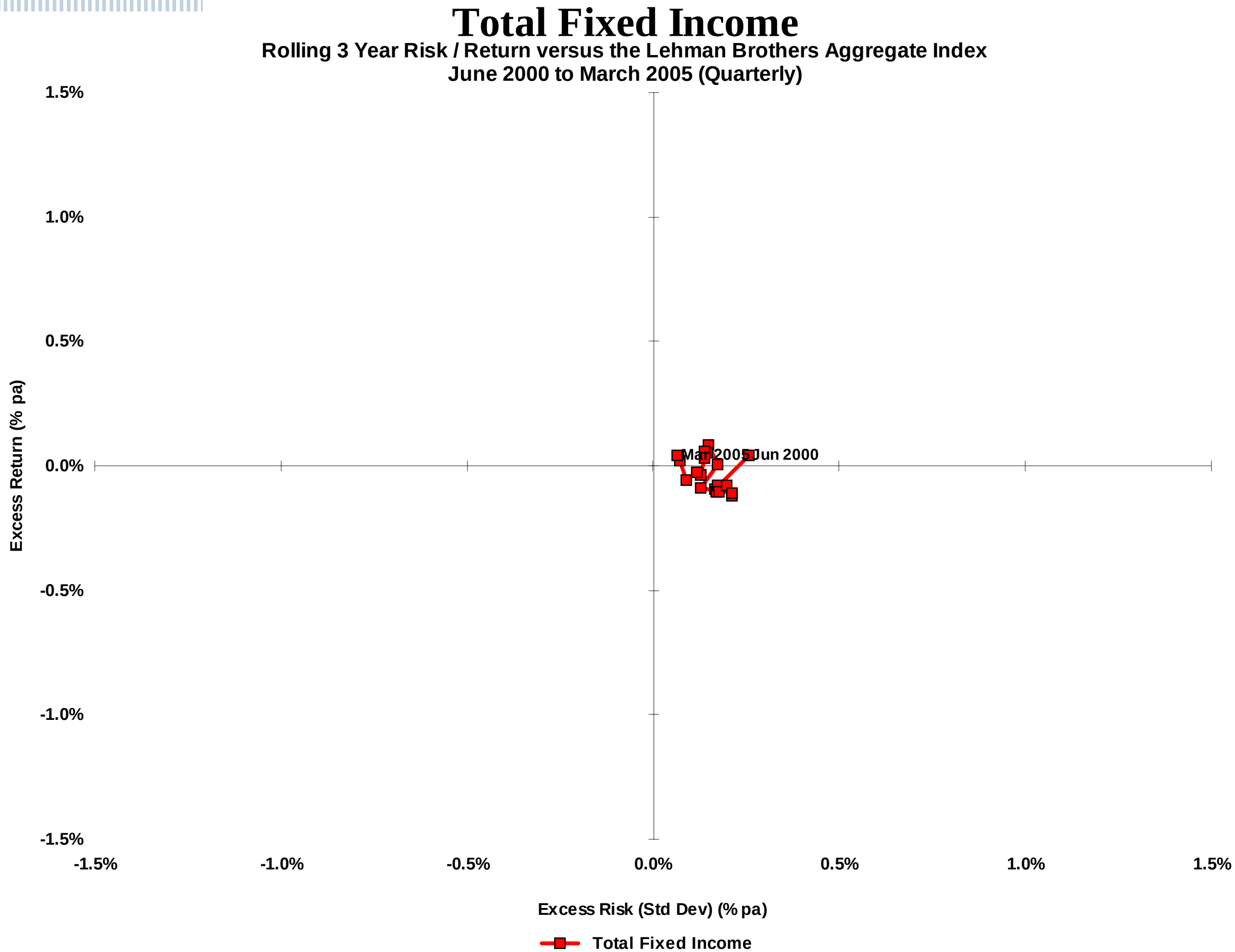
Total Fund Growth



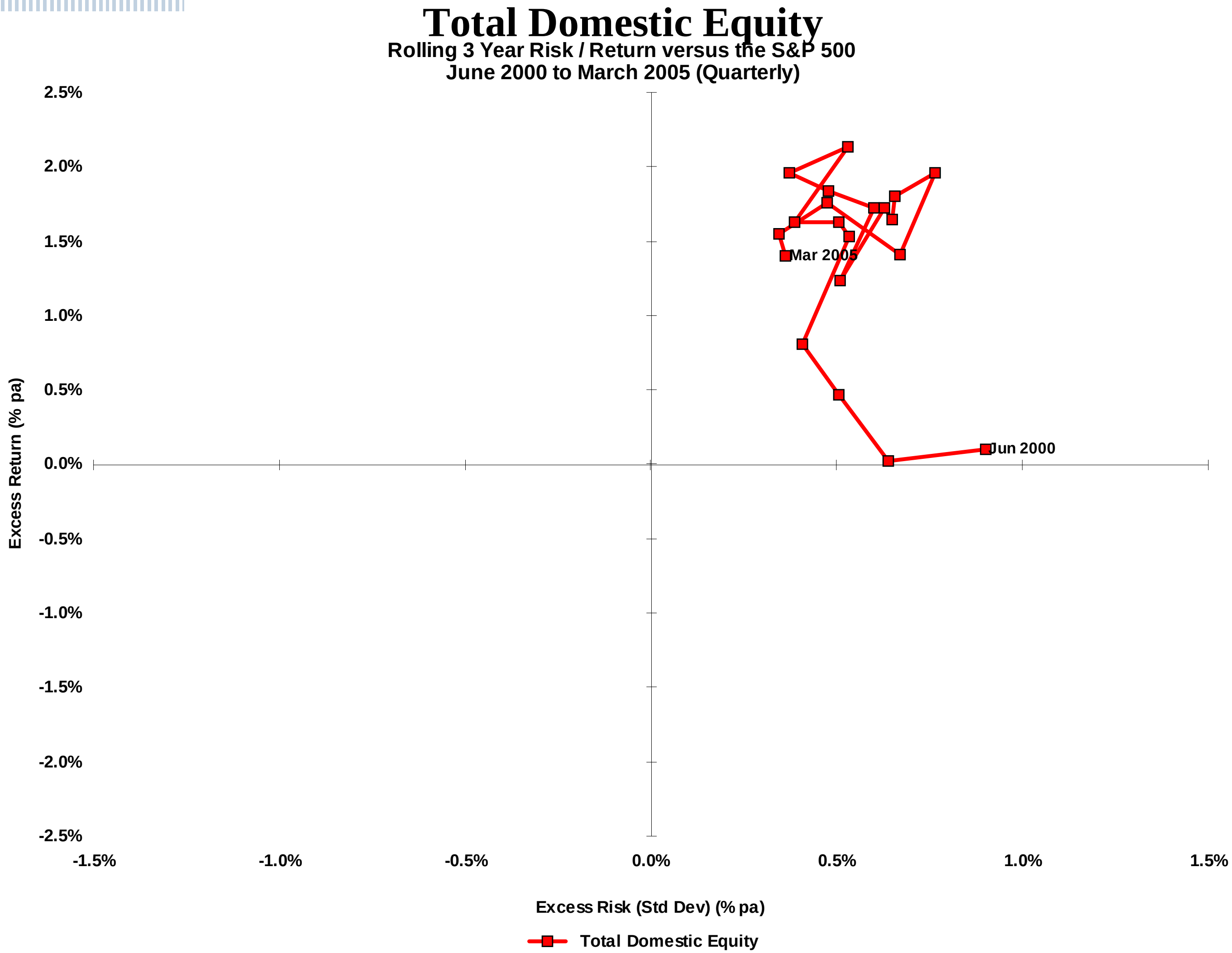
Risk/Return Analysis



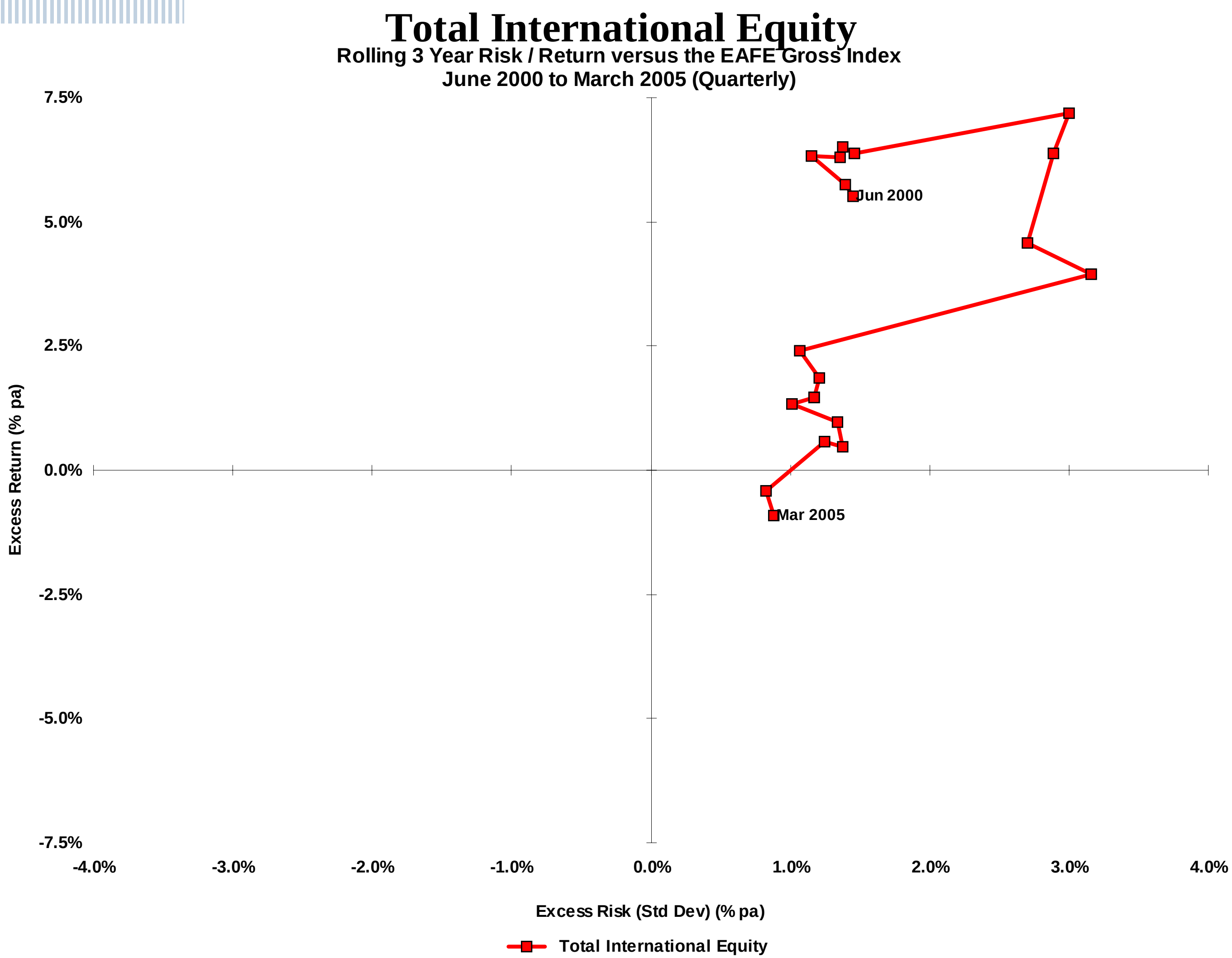
Risk/Return Analysis



Risk/Return Analysis



Risk/Return Analysis



Performance vs. Benchmarks
For the 3 Years Ending March 31, 2005

	Return	Assumed ROR	Std. Dev.
Total Fund	6.2%	7.9%	14.1%
Benchmark*	5.7		13.5
Domestic Fixed	6.0	5.0	4.0
LB Aggregate	6.0		4.0
Domestic Equity	4.2	8.9	19.8
S&P 500	2.7		19.4
Intl. Equity	11.1	9.2	23.1
EAFE	12.1		22.2

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.

Performance vs. Benchmarks
For the 5 Years Ending March 31, 2005

	Return	Assumed ROR	Std. Dev.
Total Fund	1.6%	8.1%	13.1%
Benchmark*	0.7		12.5
Domestic Fixed	7.2	5.3	3.9
LB Aggregate	7.1		3.8
Domestic Equity	-1.4	9.1	19.0
S&P 500	-3.2		18.5
Intl. Equity	0.5	9.5	21.0
EAFE	-0.8		20.6

* Interim Benchmark of 56% S&P 500/28% LB Aggregate/16% EAFE, which incorporates a proration of 6% real estate.